

AMENDMENTS TO THE CLAIMS

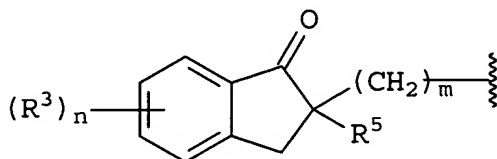
This listing of claims will replace all prior versions, and listings, of claims in the present application.

Listing of Claims:

1. (Previously Presented) A compound represented by the formula:



a pharmacologically acceptable salt thereof or hydrates thereof, wherein in the formula, R¹ represents the formula:



wherein:

(R³)s are the same as or different from each other and each represents hydrogen atom, a halogen atom, hydroxyl group, a C₁₋₆ alkyl group, a C₃₋₈ cycloalkyl group, a C₁₋₆ alkoxy group, a C₁₋₆ alkoxyalkoxy group, a halogeno C₁₋₆ alkyl group, a hydroxy C₁₋₆ alkyl group, a cyano C₁₋₆ alkyl group, an amino C₁₋₆ alkyl group, a halogeno C₁₋₆ alkoxy group, a hydroxy C₁₋₆ alkoxy group, a cyano C₁₋₆ alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted carbamoyl group, mercapto group or a C₁₋₆ thioalkoxy group;

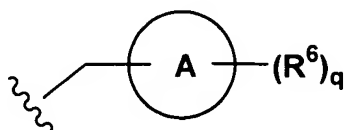
R⁵ represents a halogen atom (provided that fluorine is excluded), hydroxy group, a C₁₋₆ alkyl group, a C₁₋₆ alkoxy group, cyano group, a halogeno C₁₋₆ alkyl group, a cyano C₁₋₆ alkyl

group, an amino C₁₋₆ alkyl group, nitro group, an azido group, an optionally substituted amino group, an optionally substituted carbamoyl group, an optionally substituted carboxyl group, mercapto group or a C₁₋₆ thioalkoxy group;

m is 0 or an integer from 1 to 6; and

n is an integer from 1 to 4; and

R² represents a C₃₋₈ cycloalkylmethyl, a 2,2-(alkylenedioxy)ethyl or a group represented by the formula:



wherein:

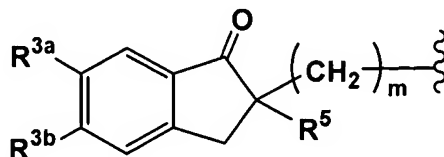
the ring A represents a benzene ring or a heterocyclic ring;

(R⁶)_s are the same as or different from each other and each represents hydrogen, a halogen atom, hydroxyl group, nitrile group, a C₁₋₆ alkyl group, a C₃₋₈ cycloalkyl group, a C₁₋₆ alkoxy group, a C₁₋₆ alkoxyalkoxy group, an aryloxy group, an aralkyloxy group, a halogeno C₁₋₆ alkyl group, a hydroxy C₁₋₆ alkyl group, a cyano C₁₋₆ alkyl group, a halogeno C₁₋₆ alkoxy group, a hydroxy C₁₋₆ alkoxy group, a cyano C₁₋₆ alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted amide group, mercapto group or a C₁₋₆ thioalkoxy group, and

two of the R⁶ may together form an aliphatic ring, an aromatic ring, a heterocyclic ring or an alkylenedioxy ring; and

q is 0 or an integer from 1 to 5.

2. **(Previously Presented)** The compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof, wherein R^1 is represented by the formula:



in which R^{3a} and R^{3b} are the same as or different from each other and each represents a C_{1-6} alkoxy group;

R^5 represents a halogen atom (provided that fluorine is excluded), hydroxy group, a C_{1-6} alkyl group, a C_{1-6} alkoxy group, cyano group, a halogeno C_{1-6} alkyl group, a cyano C_{1-6} alkyl group, an amino C_{1-6} alkyl group, nitro group, an azido group, an optionally substituted amino group, an optionally substituted carbamoyl group, an optionally substituted carboxyl group, mercapto group or a C_{1-6} thioalkoxy group; and

m is 0 or an integer from 1 to 6.

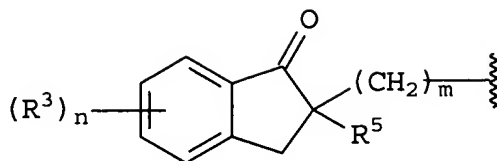
3. **(Original)** The compound according to Claim 2, a pharmacologically acceptable salt thereof or hydrates thereof, wherein R^{3a} and R^{3b} are methoxy groups.

4. **(Previously Presented)** A compound represented by the formula:



a pharmacologically acceptable salt thereof or hydrates thereof,

wherein in the formula, R^1 represents the formula:



wherein:

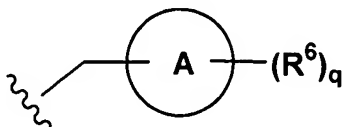
(R³)s are the same as or different from each other and each represents hydrogen atom, a halogen atom, hydroxyl group, a C₁₋₆ alkyl group, a C₃₋₈ cycloalkyl group, a C₁₋₆ alkoxy group, a C₁₋₆ alkoxyalkoxy group, a halogeno C₁₋₆ alkyl group, a hydroxy C₁₋₆ alkyl group, a cyano C₁₋₆ alkyl group, an amino C₁₋₆ alkyl group, a halogeno C₁₋₆ alkoxy group, a hydroxy C₁₋₆ alkoxy group, a cyano C₁₋₆ alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted carbamoyl group, mercapto group or a C₁₋₆ thioalkoxy group;

R⁵ is chlorine or bromine;

m is 0 or an integer from 1 to 6; and

n is an integer from 1 to 4; and

R² represents a C₃₋₈ cycloalkylmethyl, a 2,2-(alkylenedioxy)ethyl or a group represented by the formula:



wherein:

the ring A represents a benzene ring or a heterocyclic ring;

(R⁶)s are the same as or different from each other and each represents hydrogen, a halogen atom, hydroxyl group, nitrile group, a C₁₋₆ alkyl group, a C₃₋₈ cycloalkyl group, a

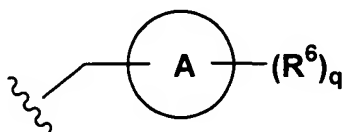
C₁₋₆ alkoxy group, a C₁₋₆ alkoxyalkoxy group, an aryloxy group, an aralkyloxy group, a halogeno C₁₋₆ alkyl group, a hydroxy C₁₋₆ alkyl group, a cyano C₁₋₆ alkyl group, a halogeno C₁₋₆ alkoxy group, a hydroxy C₁₋₆ alkoxy group, a cyano C₁₋₆ alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted amide group, mercapto group or a C₁₋₆ thioalkoxy group, and

two of the R⁶ may together form an aliphatic ring, an aromatic ring, a heterocyclic ring or an alkylenedioxy ring; and

q is 0 or an integer from 1 to 5.

5. **(Original)** The compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof, wherein m is 1.

6. **(Previously Presented)** The compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof, wherein R² is a group represented by the formula:



wherein:

the ring A represents a benzene ring or a heterocyclic ring;

(R⁶)_s are the same as or different from each other and each represents hydrogen, a halogen atom, hydroxyl group, nitrile group, a C₁₋₆ alkyl group, a C₃₋₈ cycloalkyl group, a C₁₋₆ alkoxy group, a C₁₋₆ alkoxyalkoxy group, an aryloxy group, an aralkyloxy group, a halogeno C₁₋₆ alkyl group, a hydroxy C₁₋₆ alkyl group, a cyano C₁₋₆ alkyl group, a halogeno C₁₋₆ alkoxy group,

a hydroxy C₁₋₆ alkoxy group, a cyano C₁₋₆ alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted amide group, mercapto group or a C₁₋₆ thioalkoxy group, and

two of the R⁶ may together form an aliphatic ring, an aromatic ring, a heterocyclic ring or an alkylenedioxy ring; and

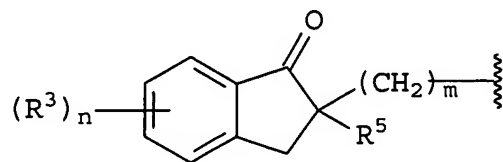
q is 0 or an integer from 1 to 5.

7. (Original) The compound according to Claim 6, a pharmacologically acceptable salt thereof or hydrates thereof, wherein the ring A is a benzene ring.

8. (Previously Presented) A compound represented by the formula:



a pharmacologically acceptable salt thereof or hydrates thereof, wherein in the formula, R¹ represents the formula:



wherein:

(R³)s are the same as or different from each other and each represents hydrogen atom, a halogen atom, hydroxyl group, a C₁₋₆ alkyl group, a C₃₋₈ cycloalkyl group, a C₁₋₆ alkoxy group, a C₁₋₆ alkoxyalkoxy group, a halogeno C₁₋₆ alkyl group, a hydroxy C₁₋₆ alkyl group, a cyano C₁₋₆ alkyl group, an amino C₁₋₆ alkyl group, a halogeno C₁₋₆ alkoxy

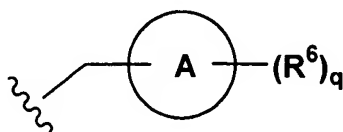
group, a hydroxy C₁₋₆ alkoxy group, a cyano C₁₋₆ alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted carbamoyl group, mercapto group or a C₁₋₆ thioalkoxy group;

R⁵ represents a halogen atom (provided that fluorine is excluded), hydroxy group, a C₁₋₆ alkyl group, a C₁₋₆ alkoxy group, cyano group, a halogeno C₁₋₆ alkyl group, a hydroxy C₁₋₆ alkyl group, a cyano C₁₋₆ alkyl group, an amino C₁₋₆ alkyl group, nitro group, an azido group, an optionally substituted amino group, an optionally substituted carbamoyl group, an optionally substituted carboxyl group, mercapto group or a C₁₋₆ thioalkoxy group;

m is 0 or an integer from 1 to 6; and

n is an integer from 1 to 4; and

R² represents a C₃₋₈ cycloalkylmethyl, a 2,2-(alkylenedioxy)ethyl or a group represented by the formula:



wherein the ring A is a pyridine ring;

(R⁶)s are the same as or different from each other and each represents hydrogen, a halogen atom, hydroxyl group, nitrile group, a C₁₋₆ alkyl group, a C₃₋₈ cycloalkyl group, a C₁₋₆ alkoxy group, a C₁₋₆ alkoxyalkoxy group, an aryloxy group, an aralkyloxy group, a halogeno C₁₋₆ alkyl group, a hydroxy C₁₋₆ alkyl group, a cyano C₁₋₆ alkyl group, a halogeno C₁₋₆ alkoxy group, a hydroxy C₁₋₆ alkoxy group, a cyano C₁₋₆ alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally

substituted amide group, mercapto group or a C₁₋₆ thioalkoxy group, and two of the R⁶ may together form an aliphatic ring, an aromatic ring, a heterocyclic ring or an alkylenedioxy ring; and

q is 0 or an integer from 1 to 5.

9. **(Original)** The compound according to Claim 6, a pharmacologically acceptable salt thereof or hydrates thereof, wherein q is an integer of 1 or 2.

10. **(Previously Presented)** The compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof, which is selected from the group consisting of:

1-benzyl-4-[(5,6-dimethoxy-2-chloro-1-indanon)-1-yl]methylpiperidine,
1-benzyl-4-[(5,6-dimethoxy-2-bromo-1-indanon)-2-yl]methylpiperidine,
1-benzyl-4-[(5,6-dimethoxy-2-iodo-1-indanon)-2-yl]methylpiperidine,
1-benzyl-4-[(5,6-dimethoxy-2-hydroxy-1-indanon)-2-yl]methylpiperidine,
1-benzyl-4-[(5,6-dimethoxy-2-methyl-1-indanon)-2-yl]methylpiperidine,
1-benzyl-4-[(5,6-dimethoxy-2-ethyl-1-indanon)-2-yl]methylpiperidine,
1-benzyl-4-[(5,6-dimethoxy-2-azido-1-indanon)-2-yl]methylpiperidine,
1-benzyl-4-[(5,6-dimethoxy-2-amino-1-indanon)-2-yl]methylpiperidine,
1-benzyl-4-[(5,6-dimethoxy-2-methylamino-1-indanon)-2-yl]methylpiperidine,
1-benzyl-4-[(5,6-dimethoxy-2-dimethylamino-1-indanon)-2-yl]methylpiperidine, and
1-benzyl-4-[(5,6-dimethoxy-2-acetamide-1-indanon)-2-yl]methylpiperidine.

11-14. (Canceled)

15. (Currently Amended) A ~~medical~~ pharmaceutical composition comprising:

a pharmacologically effective amount of the compound according to Claim 1 for treating Alzheimer-type senile dementia or cerebrovascular dementia, a pharmacologically acceptable salt thereof or hydrates thereof; and
a pharmacologically acceptable carrier.

16-21. (Canceled)

22. (New) A method of treating Alzheimer-type senile dementia, said method comprising administering a pharmacologically effective amount of the compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof to a patient in need thereof.

23. (New) A pharmaceutical composition comprising the compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof; and
a pharmacologically acceptable carrier.

24. (New) The compound according to Claim 1, the pharmacologically acceptable salt thereof or hydrates thereof, wherein R⁵ in the formula represents a halogen atom (provided that fluorine is excluded), hydroxy group, a C₁₋₆ alkyl group, a C₁₋₆ alkoxy group, cyano group, a halogeno C₁₋₆ alkyl group, a cyano C₁₋₆ alkyl group, an amino C₁₋₆ alkyl group, nitro group, an

azido group, an optionally substituted amino group, an optionally substituted carbamoyl group, mercapto group or a C₁₋₆ thioalkoxy group.